Swedish National Diabetes Register (NDR) for 35,238 persons with type 2 diabetes aged 30-74 years at diagnosis from January 1, 2004 to December 31, 2008 were analyzed using the conditional non-frailty Weibull model. To not underestimate the effect of BMI, two specifications of the model were estimated. Age at diagnosis, sex, hypoglycaemic treatment, diabetes duration, microalbuminuria and smoking were common covariates in both models. **RESULTS:** A total of 1409 patients had one MI event and 200 experienced two events. The results showed that the risk of a second MI differ from the risk of having a first MI. In addition, the effects of covariates were not constant between multiple events. Women had a lower risk for developing a first event compared to men, but a higher risk for a second event conditional on the first MI. Preliminary results indicate four times higher hazard of developing a MI conditional on a first MI during the follow up. **CONCLUSIONS:** The findings show the need for an update of simulation models including health-economic models and risk engines to include separate transition probabilities for first and subsequent events for correct predictions of costs and quality of life gains. Using recurrent event risk equations may reduce the bias from the previous assumption of constant transition probabilities for consecutive events in health economic models.

Cardiovascular Disorders – Cost Studies

PCV38

BUDGET IMPACT OF CHANGING FUTURE STATIN USE PATTERNS IN SWEDEN

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OBJECTIVES: To assess the health and budget impact of increasing use of rosuvastatin in patients with high cardiovascular risk, while maintaining the overall level of use, upon the entry of generic atorvastatin in Sweden. **METHODS:** A model was developed to estimate the budget impact associated with changed statin utilization pattern in different risk groups. The Framingham Risk equation was used to estimate cardiovascular events, and the relative risk reduction for statins was modeled using the JUPITER (Justification for the Use of statins in Primary prevention: an Intervention Trial Evaluating Rosuvastatin) trial. A similar relative risk reduction was used for primary and secondary prevention settings based on available literature. Baseline risk distribution was derived from the Malmö Primary Prevention Study. The use of rosuvastatin was assumed to increase from 4% (2011) to 7% (2014) in the high-risk group (27% baseline 10-year Framingham risk), but the overall use was kept unchanged (4%). A gradual atorvastatin use increase was assumed with a corresponding decrease in simvastatin use over 3 years. Cost calculations were from Swedish public health sources. Generic price for atorvastatin was assumed to be 5% of branded price. **RESULTS:** For the Swedish population on statin treatment (810,304 patients, 25% with a previous history of CVD) the estimated budget impact decreased by SEK 359 millions in 2012 (compared with 2011) and by SEK 441 millions in 2014 with changed statin utilization. The estimated number of CVD events avoided ranged from 98 in 2012 to 197 in 2014 compared with current year (0.81% decrease over the 3-year period). **CONCLUSIONS:** A shift to generic atorvastatin in 2012, accompanied by increased use of rosuvastatin in high-risk patients whilst maintaining rosuvastatin overall use at current levels, was estimated to prevent more cardiovascular events and resulted in overall healthcare budget savings for the 3-year period in Sweden.

PCV39

HEPARIN-INDUCED THROMBOCYTOPENIA TYPE II IN TIMES OF DEMOGRAPHIC CHANGES – EPIDEMIOLOGICAL AND ECONOMIC ASPECTS IN GERMANY

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OBJECTIVES: The antibody-mediated, prothrombotic heparin-induced thrombocytopenia type II (HIT-II) is a life-threatening disease with high thrombosis risk of 38-76% and up to 20% mortality. Pulmonary embolism occurs in up to 40% of patients, and amputations are necessary in up to 15%. The objective was to evaluate frequency and cost of HIT-II in Germany. **METHODS:** Systematic literature searches regarding epidemiology and cost of HIT-II were conducted until end of 2000 with Medical Subject Heading terms “incidence”, “epidemiology”, “risk”, and “cost” each in combination with “heparin-induced thrombocytopenia”. German secondary data were obtained by desktop research from the German Federal Statistical Office and a German university hospital. **RESULTS:** Literature search yielded eleven relevant publications selected by successive title, abstract and whole publication screening from a total of 1225 hits. Published incidence for HIT-II in Germany was 0.039% for in-hospital patients, and average additional costs per patient amounted to €9004 (Wilke et al., J Thromb Haemost, 2009). Data from the German Federal Statistical Office for 2009 show an incidence of 0.05% for patients with secondary diagnosis HIT-II, ICD-10 Code D69.53, corresponding to 8,585 cases (age peak 65-85 years) with an average prolongation of hospital stay by 18 days. The frequency of documented HIT-II as secondary diagnosis increased since 2005 by 60.4% (2005: 5353; 2006: 6263; 2007: 7177; 2008: 7454 cases). Estimated additional costs generated by HIT-II in Germany in 2005 amount to 48 million euro, and in 2009 to a minimum of 77 million euro. **CONCLUSIONS:** Cost and burden of HIT-II are considerable. Due to the demographic development to be expected in Germany during the next decades in combination with the age peak of the disease a further increase in HIT-II cases has to be anticipated. Data are limited. Further epidemiological research and analysis of burden of disease from several perspectives are needed.

PCV40

BUDGET IMPACT MODEL AFTER THE INTRODUCTION OF VERNAKALANT IN SPAIN

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OBJECTIVES: To estimate the hospital impact with the introduction of vernakalant in hospital emergency departments (EDs) in Spain. **METHODS:** Patients with recent onset atrial fibrillation (AF) (<48H) or non-permanent AF without thromboembolic risk (anticoagulation or negative transesophageal echocardiography) were included in the ED setting. Scenario: Data derived from the RHYTHM-AF-Spain study or determined by the hospital. Budget impact model with the following variables: percentage of use of anti-arrhythmic drugs (AAD) before and after the entry of vernakalant, time to cardioversion with AAD and number of patients per year that could be treated with vernakalant. Outcome variables: impact on pharmacy budget, length of stay in ED (cost offset, additional patients treated in ED). Time to achieve sinus rhythm for vernakalant, drug cost, and hospital stay were obtained from published data. **RESULTS:** According to Spanish RHYTHM-AF study data, in 67% of these patients cardioversion (CV) is attempted with the following AAD (proportion; mean time to normal sinus rhythm): amiodarone iv (55%; 7 hours), flecainide iv/oral (12%/28%; 1.5/4.2 hours), propafenone iv/oral (1%/4%; 2/6.1 hours). It is estimated that in a hospital like those enrolled in RHYTHM-AF, approximately 150 patients per year would be admitted into the ED and pharma-cardioversion would be attempted in 101. Assuming that AADs were partially substituted for vernakalant (30% for amiodarone, 15% flecainide oral, 5% flecainide iv, and 5% propafenone oral), 22 patients would receive vernakalant per year. The annual incremental cost is €7,772.13, but offset in 63.4% due to a reduction of 123.16 hours of stay in the ED that would also allow for the assistance of 15 additional patients. **CONCLUSIONS:** The reduction of hospital stay associated with the use of vernakalant carries a high percentage of compensation costs associated with reduction of stay in the ED and frees up resources to attend to more patients.

PCV41

THE BUDGETARY IMPACT OF IMPLEMENTING A TELEHEALTH HOME MONITORING SYSTEM FOR CHRONIC HEART FAILURE PATIENTS IN A TYPICAL UK PRIMARY CARE TRUST

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OBJECTIVES: There has been enormous interest in the potential benefit, primarily around decreased medical resource use, of the introduction of telehealth home monitoring systems (THMS) for chronic disease management. Widespread adoption has nevertheless been slow due to a lack of information on the financial implications of implementation. THMS requires a substantial initial investment which in a time of budget cuts needs economic justification. The objective of this study was to provide an estimate of the potential short-term financial implications of introducing the Care Innovations™ Guide THMS for patients with chronic heart failure (CHF) in a typical PCT within the UK. **METHODS:** A one-year budget impact model was developed looking at key financial drivers of CHF care including GP visits, unplanned hospitalisation, ambulance time, etc. The model assessed the impact on these costs after the introduction a THMS package for a PCT with a population of 500,000, assuming the initial THMS uptake would be 30% of CHF patients. Population and disease incidence and prevalence data for England were taken from the Quality and Outcomes Framework 2009-10. Average costs per unit of medical resource use, amount of resource use per year for a typical chronic CHF patient receiving standard care and estimates of the impact of the THMS on resource use were estimated from published literature. **RESULTS:** The model estimated that the introduction of THMS required an initial investment of £9,440,567 but yielded a return of 2% (£158,812) within one year. **CONCLUSIONS:** The introduction of THMS requires considerable initial investment; however this model suggests that this is offset within a very short time-frame due to reductions in medical resource usage and is expected to lead to substantial savings over the medium-term. This should encourage decision-makers to seriously consider moving from small pilot studies to more widespread implementation of THMS.

PCV42

A BUDGET IMPACT ANALYSIS TO ESTIMATE THE ECONOMIC IMPACT OF SEVIKARHCT® FOR THE TREATMENT OF ARTERIAL HYPERTENSION IN SPAIN

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OBJECTIVES: To assess the economic impact of adding SevikarHCT® to the Spanish market for the treatment of arterial hypertension in the adult population aged over 35. SevikarHCT® concerns a new three-in-one combination tablet containing olmesartan medoxomil, amlodipine and hydrochlorothiazide. **METHODS:** To estimate the economic impact a budget impact was developed using the Spanish national healthcare system (NHS) perspective and a 3-year time horizon. The patient population was estimated based on disease prevalence, population growth and data on the currently treated population with combinations of receptor blockers of the antagonists of the angiotensin II (ARBII) with calcium channel blockers (CCB) alone or together with diuretics (DIU) in fixed doses. Costs considered in this model included drugs actually marketed or over the next three years consisting of Balzak®, Balzak plus®, Capenon®, CapenonHCT®, Copalia®, CopaliaHCT®, Dafiro®, DafiroHCT®, Exforge®, ExforgeHCT®, Imprida®, ImpridaHCT®, Twynsta®, Sevikar® and SevikarHCT® expressed in EUR 2010. Based on the annual drug costs per patient and market shares for each treatment the economic burden before and after the introduction of SevikarHCT® was estimated. A drop of 28% in drug prices